

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R000929910001-0

#

3/5

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R000929910001-0"

LIFSHITS, A.I.

137-58-5-9284

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 71 (USSR)

AUTHORS: Savari, Ye.A., Yudina, I.N., Lifshits, A.I.

TITLE: Measures Designed to Reduce Gold Losses in Tailings of Gold Mining Plants (Razrabotka meropriyatiy po snizheniyu poter' zolota v khvostakh zolotoizvlekatel'nykh fabrik)

PERIODICAL: Tr. N.-i. gornorazved. in-ta "Nigrizoloto", 1957, Nr 22,
pp 150-152

ABSTRACT: An account of work undertaken by certain gold-mining establishments for the purpose of determining the factors responsible for incomplete extraction of Au. Average-weight samples selected from tailings and middlings were inspected for size and shape of the grains of gold; the condition of the Au (covered with a film, free, etc.) and its purity were determined and various other tests were performed. Reasons for increased Au losses are explained and means of reducing them are shown.

I. D.

1. Gold--Production 2. Gold ores--Processing

Card 1/1

137-50-6-11344

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 12 (USSR)

AUTHOR: Lifshits, A.I.

TITLE: Portable Dressing Plant for Treatment of Placer Prospecting Specimens (Perevodchik obogatitel'naya ustanovka dlya obrabotki razvedochnykh prob rossyey)

PERIODICAL: Tr. N.-i. gornorazved. in-ta "Nigrizoloto", 1957, Nr 24,
pp 36-39

ABSTRACT: A description is offered and a diagram presented of a portable installation developed by the "Nigrizoloto" Institute. The equipment consists of a drum disintegrator and centrifugal separator, the engineering characteristics of which are presented.

A.Sh.

1. Separators--Design

Card 1/1

L 06197-67 FSS 2/EWT(1)/EMP(v)/EMP(t)/ETI/EMP(k) DS/JD/HM
ALL NR. AP6032489 SOURCE CODE: UR/0413/66/000/017/0030/0030

INVENTOR: Alekseyev, F. A.; Balashov, V. A.; Gershonok, M. I.; Grachev, I. M.;
Yegorov, B. A.; Kobyl'nitskaya, M. I.; Kozlov, D. A.; Lifshits, A. I.; Mondrus, D. B.;
Parshin, N. A.; Rashevskiy, A. L.; Rivkin, A. E.; Tal'gren, A. A.; Khanzavarov, A. A.

ORG: none

TITLE: Device for high frequency soldering of lead-acid storage batteries. Class 21,
No. 185368

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 17, 1966, 30

TOPIC TAGS: metal soldering, storage battery

ABSTRACT: An Author Certificate has been issued for a device for high-frequency
soldering of lead-acid storage batteries. The device contains an h-f generator with
an external tank circuit, a multiloop inductor with open ferrite magnetic circuits, a
conveyor with a lifting table, a control desk, and an assembling-soldering former
equipped with a magnetic screen fastened on a non-magnetic base. Orig. art. has:
1 figure.

UDC: 621.352.2:621.791.357:621.3. 029.5

Card 1/2

L 06197-67
ACC NR: AP6032489

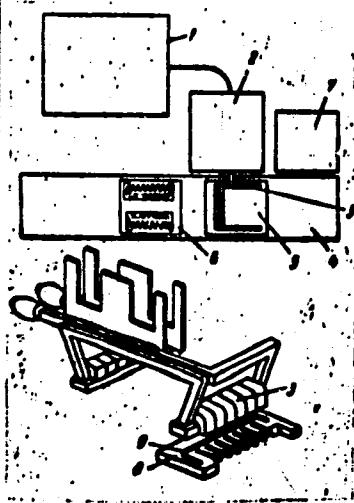


Fig. 1. 1 - H-f generator; 2 - external tank circuit;
3 - inductor; 4 - conveyor; 5 - lifting table;
6 - control desk; 7 - former; 8 - screen; 9 - base..

SUB CODE: 10,13 / SUBM DATE: 24 Mar 65

Card 2/2 a/s

EYGELES, Moisey Arnol'dovich, prof., doktor tekhn. nauk; LIFSHITS,
A.K., retsenzent; BARSKIY, L.A., otv. red.

[Principles of flotation of nonsulfide minerals] Osnovy flo-
tatsii nesul'fidnykh mineralov. Izd.2., perer. i dop. Mo-
skva, Izd-vo "Nedra," 1964. 406 p. (MIRA 17:5)

LIPSHITS, Anatoliy L'vovich; VIZVILKO, S.A., inzh.-kapitan 2 ranga, red.;
MEDNIKOVA, A.N., tekhn.red.

[Destroyers] Eskadrennye minonoscy. Moskva, Voen.izd-vo M-va
obor.SSSR, 1960. 162 p. (MIRA 13:4)
(Destroyers (Warships))

AM4037977

BOOK EXPLOITATION

S/

Lifshits, Anatoliy L'vovich (Candidate of Military Sciences, Navy Department)

Cybernetics in the navy (Kibernetika v voyenno-morskem flote), Moscow, Voenizdat, 1964, 257 p. illus., biblio. Errata slip inserted. 4,500 copies printed.

TOPIC TAGS: cybernetics, military science, information theory, naval operations,

PURPOSE AND COVERAGE: This book acquaints the readers with the general principles of cybernetics and the general concepts of its application to military operations. The reader will become acquainted with military applications of information theory, principles of algorithm development and machine solution of operational-tactical problems and also with the basic methods of studying operations. The problems of automation of control of forces and the use of cybernetic methods to teach and train staff in the control of weapons, technology, ships, and fleets of ships are also examined. The book is intended for a wide audience of fleet officers and officers in the other services, teachers, and students of military and naval educational institutions, and ship-building industry workers. It also is of interest for students and teachers of higher educational institutions and for engineers working in the various areas of industrial control. The book was written from materials of the open domestic and foreign press.

Card 1/2

AM4037977

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- Foreword -- 3
Ch. I. Basic concepts of cybernetics -- 3
Ch. II. Military cybernetics and its basic principles -- 32
Ch. III. Information -- 59
Ch. IV. Algorithms and their role in the automation of military control processes -- 117
Ch. V. Study of operations -- 150
Ch. VI. Automation of the control of forces in military actions -- 197
Ch. VII. Use of automation to train the staff of the Navy -- 235
Bibliography -- 254

SUB CODE: DP, MS

SUBMITTED: 16Dec63 NR REF Sov: 054

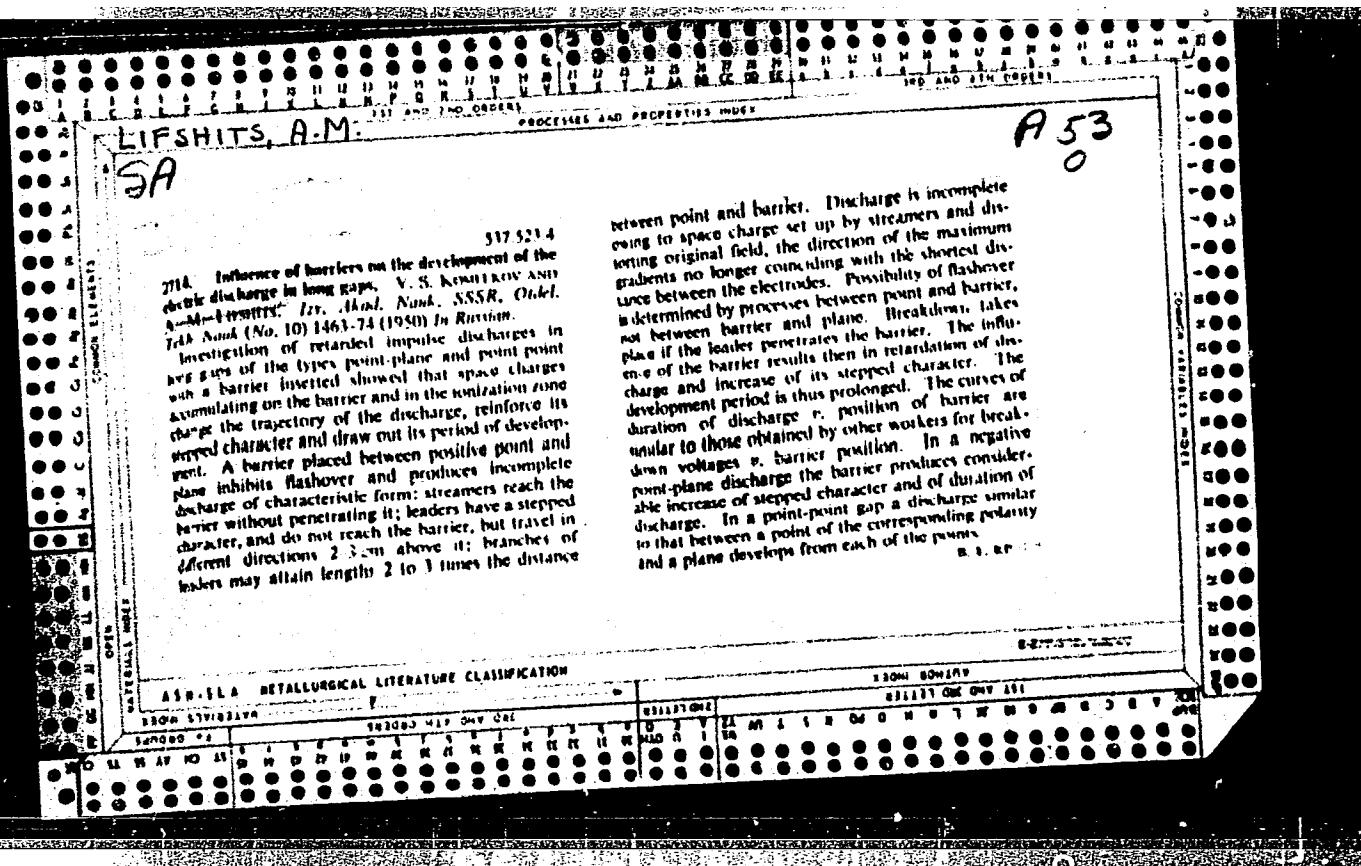
OTHER: CO5

DATE ACQ: 07May64

Card 2/2

BERG, A.I., glav. red.; TRAPEZNIKOV, V.V., glav. red.; TSYPKIN,
Ya.Z., doktor tekhn. nauk, prof., red.; VORONOV A.A.,
prof., red.; AGEYKIN, D.I., doktor tekhn. nauk red.; GAVRILOV,
M.A., red.; VENIKOV, V.A., doktor tekhn. nauk, prof., red.;
SOTSKOV, B.S., red.; CHELYUSTKIN, A.B., doktor tekhn. nauk,
red.; PROKOF'YEV, V.N., doktor tekhn. nauk, prof., red.;
IL'IN, V.A., doktor tekhn. nauk, prof., red.; KITOV, A.I.,
doktor tekhn. nauk, red.; KRINITSKIY, N.A., kand. fiz. mat.
nauk, red.; KOGAN, B.Ya., doktor tekhn. nauk, red.; USHAKOV,
V.B., doktor tekhn. nauk, red.; LERNER, A.Ya., doktor tekhn.
nauk, prof., red.; FEL'DBAUM, A.A., doktor tekhn. nauk, prof.,
red.; SHREYDER, Yu.A., kand. fiz.-mat. nauk, red.; KHARKEVICH,
A.A., akademik, red. [deceased]; TIMOF'EYEV, P.V., red.;
MASLOV, A.A., dots., red.; TRUTKO, A.F., inzh., red.; LEVIN,
G.A., prof., red.; LOZINSKIY, M.G., doktor tekhn. nauk, red.;
NETUSHIL, A.V., doktor tekhn. nauk, prof., red.; POPKOV, V.I.,
red.; ROZENBERG, L.D., doktor tekhn. nauk, prof., red.;
LIFSHITS, A.L., kand. tekhn. nauk, red.; AVEN, O.I., kand.
tekhn. nauk, red.; BLANN, O.M. [Blunn, O.M.], red.; BROYDA, V.,
inzh., prof., red.; BREKK'L, L [Brockl, L.] inzh., knad. nauk, red.;
VAYKHARDT, Kh. [Weichardt, H.], inzh., red.; BOCHAROVA, M.D., kand.
tekhn. nauk, st. nauchn. red.

[Automation of production processes and industrial electronics]
Avtomatizatsiya proizvodstva i promyshlennaya elektronika; entsiklo-
pediya sovremennoi tekhniki. Moskva, Sovetskaia entsiklopediya.
Vol.4. 1965. 543 p. "IRA 18:6)



LIFSHITS, A.M.

USSR, Electricity - Transmission Lines, Apr. 51
High-Voltage

Corona

"Problems of Corona on 400-KV Lines. II. Radio Interference in Corona of Conductors," N. B. Bogdanova, A. M. Lifshits, Power Eng. Institute G. M. Krzhizhanovskiy, Acad Sci USSR

190T47 "Iz Ak Nauk, Otdel Tekh Nauk" No 4, pp 497-506

Previous article dealt with corona loss. Present article gives basic analytical data obtained from measuring intensity of radio interference field near conductors of exptl lines and some operational

190T47

USSR, Electricity - Transmission Lines, Apr. 51
High-Voltage (Contd)

220-kv lines. Data are fragmentary and incomplete, but permit some conclusions on variation of interference field for different geometric and electrical parameters of the line and under various atmospheric conditions. Sub by Acad A. V. Vinter 18 Sep 50.

190T47

LIFSHITS, A.M.

Distribution of atherosclerosis and hypertension among the population of the southern shore of the Crimea according to autopsy data in 1949-1959. Kardiologiya 4 no.6:56-57 N-D '64.

(MIRA 18:8)

1. Yaltinskaya gorodskaya bol'nitsa (glavnnyy vrach S.G.Kazakov).

LIFSHITS, A.M. (Yalta)

Files of a pathological anatomy department of a hispital.
Arkh. pat. no.11:79-80 '64. (MIRA 18:11)

1. Yaltinskaya gorodskaya bol'nitsa (glavnyy vrach S.G. Kazakov).

FRIDMAN, B.N.; LIFSHITS, A.S.; YERSHOV, B.Ya.

Centrifugal spinning machine for the dry spinning of bast fibers.
Tekst.prom. 14 no.2:10-13 F '54. (MLRA 7:5)

1. Nauchnyy sotrudnik TsNIILV (for Fridman and Lifshits).
2. Glavnyy inzhener fabriki "Serp i Molot" (for Yershov).
(Spinning machinery)

IOFFE, A.I.; LIFSHITS, A.S.

Electric compensation of temperature errors in potentiometric pressure-recording gauges. Izm.tekh.no.3:37-40 My-Je '56. (MLRA 9:9)
(Pressure gauges)

LIFSHITS, A.S., IOFFE, A.J.

Induction transformer transducers used in remote measurements of
displacements. Izm. tekhn. no.3:66-68 My-Je '57. (MLRA 10:8)
(Remote control)

SOV/115-59-7-15/33

9(2,3)

AUTHORS: Lifshits, A.S., Flid, Ya.I.**TITLE:** Electronic Circuits for Differentiating Direct Current Voltages**PERIODICAL:** Izmeritel'naya tekhnika, 1959, Nr 7, pp 28-30 (USSR)**ABSTRACT:** In this paper the authors discuss several differentiating circuits composed of operational amplifiers. They explain calculation problems and present experimental characteristics of these circuits. The experimental investigations were performed by means of UPT-4 amplifiers which are linear within the limits of voltage changes at the output of ± 100 volts. Such circuits are used for solving many problems where derivatives of different time functions are required. In computers this operation is reduced to a differentiation of the direct current voltages. In a number of cases the circuits used for this purpose must provide a differentiation in a sufficiently wide frequency range (10-30 cycles). Known differentiating circuits, shown in fig.1, do not provide the required characteristics. The authors consider differentiating circuits with RC and dc amplifiers, and differentiating circuits with integrating amplifiers. The experimental characteris-

Card 1/2

SOV/115-59-7-15/33

Electronic Circuits for Differentiating Direct Current Voltages

tics plotted at $T_1 = 0.001$ sec and $T_1 = 0.01$ sec for a differen-
tiating circuit with a dc amplifier are shown in fig.4. Fig.5
shows the experimental frequency characteristics for a diffe-en-
tiating circuit with an integrating amplifier. There are 2 cir-
cuit diagram sets and 3 graphs.

Card 2/2

9 (2), 28 (2)

SOV/115-59-10-12/29

AUTHORS: Lifshits, A.S., Dedok, I.A.

TITLE: Determining the Frequency Characteristics in the Development of Automatic Control Systems

PERIODICAL: Izmeritel'naya tekhnika, 1959, Nr 10, pp 26-27 (USSR)

ABSTRACT: The inclusion of a phase inverter and of a voltage divider in the measuring circuit diagram of frequency characteristics with an electronic oscilloscope, required for the development of automated control systems, simplifies the whole process and reduces the time of computation. The value of the phase shift is read from the phase inverter scale and the relation between the amplitude of the generated quantity (vykhodnoy signal) of the tested section and the input signal, from the voltage divider scale. The principle of the device proposed by the authors is based on the method of comparing the phase and the amplitude of the generated quantity of the tested section with the phase and the amplitude of the phase inverter signal.

Card 1/2

Determining the Frequency Characteristics in the Development of
Automatic Control Systems

SOV/115-59-10-12/29

The phase inverter circuit (Fig 1) consists of standard UPT-Ch d.c. amplifiers 1, 2 and 3 and of a double sinus-cosinus potentiometer 4 and 5 (Fig 1). These potentiometers are reciprocally fed with $\pm U \sin \omega t$ and $\pm U \cos \omega t$ voltages from the low-frequency generator. The computation method is described in the article. There are 2 diagrams and 1 graph.

Card 2/2

LIFSHITS, A.S.; MANDELBERG, I.R.

Protection of manometers in measuring pulsating pressures. Izm.
tekhn. no. 6:20-22 Je '60. (MIRA 14:2)
(Manometer—Safety measures)

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R000929910001-0

FLID, Ya. I.; LIFSHITS, A.S.

Determining the effective value of voltage varying according to a
random law. Izm.tekh. no.5:35-38 My '61. (MIRA 14:5)
(Electronic measurements)

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R000929910001-0"

L 65029-65 EIT(m)/EIP(i)/EIP(t)/EIP(b) IJP(c) JD

ACCESSION NR. AP3021082 UR/0288/65/000/002/0151/0153

621.3.032

AUTHOR: Moldaver, T. I.; Lifshits, A. S.

TITLE: Aluminizing of needles for semiconductor apparatus

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya tekhnicheskikh nauk, no. 2, 1965, 151-153

TOPIC TAGS: aluminum plating, aluminum alloy, zinc alloy, semiconductor device/VAMI plating flux, 34A plating flux

ABSTRACT: The article states that in the usual process for aluminizing these needles, they are covered not with aluminum, as assumed up to now, but with an aluminum-zinc alloy. Because of its rate of diffusion into germanium, zinc has a harmful effect on semi-conductors, and the use of zinc in this process should be avoided. Aim of the work was to find a flux containing no zinc. Six fluxes were tested in aluminizing at 700C. Their designations, composition, and operating results are listed in a table. As a result of these tests, flux VAMI was selected for further experiments. Its composition was as follows: KCl: NaCl: Na₃AlF₆, 5:3:2. The flux fused well, there were many yellow sparks and aluminizing pro-

Card 1/2

U-65029-02
ACCESSION NR. AP5021082

ceeded in a normal manner with the exception of the appearance of black films on the surface of the flux which made the operation more difficult. It is concluded that it is desirable to change from flux 34A (composition not given) to other fluxes not containing zinc. If flux 34A is used, the contact time of each part of the aluminum with the flux must be decreased. "In conclusion, we express our thanks to A. F. Gorodetskoin for valuable remarks in discussion of this article."

Orig. art. has: 1 table

ASSOCIATION: Novosibirskiy elektrotekhnicheskij institut (Novosibirsk Electro-technical Institute)

SUBMITTED: 09Jun64

ENCL: 00

SUB CODE: MM, EC

NR REF SOV: 008

OTHER: 000

Card 2/2 MLL

LIFSHITS, A.V., inzh.; SHEYNMAN, Ye.Sh., inzh.

Use of supporting rings in rotary kilns. Stroi. mat. 11 no.7:
17-18 Jl '65. (MIRA 18:8)

LIFSHITS, A. V.

USSR/Medicine - Nervous System, Physiology Jan 49

Medicine - Hypoxemia, Effects

Jan 49

PA 47/49T70
"Effect of Hypoxemia on Higher Nervous Activity,"
A. V. Lifshits, Barothermal Lab, Chair of Physiol,
Mil Med Acad imeni S. M. Kirov, 13 pp
"Fiziol zhur SSSR" Vol XXXV, No 1.

Studies were carried out to determine degree of hypoxemia in dogs exposed to altitudes of 1,000 - 7,000 meters in a compression chamber. Mild average hypoxemia was observed at 1,000 - 2,000 meters. Average hypoxemia was evident at 3,000 - 5,000 meters. Altitudes of 5,000 - 7,000 meters produced severe hypoxemia with a condition similar to complete

47/49T70

USSR/Medicine - Nervous System, Physiology Jan 49

(Contd)

disruption of the nervous system. Reflexes were absent during severe hypoxemia.

47/49T70

STEPANENKO, M.G., doktor tekhn.nauk, prof.; LIFSHITS, A.V., inzh.;
SIMIN, G.F., inzh.

Study of heat exchange in tunnel kilns during the firing of
ceramic wall materials. Stroi.mat. 8 no.7:28-30 Jl '62.

(Ceramics) (Kilns)

(MIRA 15:8)

LIFSHITS, A.V., inzh.

High-speed method of kilning ceramic materials. Stroi. mat. 9
no.7:37-39 Jl '63.
(MIRA 16:11)

SIMIN, G.F., inzh., laureat Gosudarstvennoy premii; LIFSHITS, A.V., inzh.;
SHEYNMAN, Ye.Sh., inzh.

Heat exchange during kilning of ceramic wall materials in
tunnel kilns. Sbor. trud. ROSNIIMS no.27:24-38 '63.
(MIRA 17:1)

LIFSHITS, A.V.; MASLOV, N.P.

Device for checking holes in boring. Mashinostroitel' no. 3:24-25
Ag '64. (MIRA 17:10)

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R000929910001-0

LIFSHITS, A.Y., inzh.; ABRAMOV, I.Ya., inzh.

Producing lime in rotary kilning machines. Stroi. mat. 10 no.7:
(NIRA 18:1)
26-27 Jl '04

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CIA-RDP86-00513R000929910001-0"

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R000929910001-0

LIFSHITS, A.V., inzh.; SHEYNMAN, Ye.Sh., inzh.

Improved vortical gas burner for firing keramzit. Stroi. mat.
(MIRA 18:12)
no.11:36-37 N '65.

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R000929910001-0"

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R000929910001-0

AKSEL'RUD, L.G.; GLINKOV, M.A.; GRIGOR'YAN, V.N.; LIFSHITS, A.Ye.; MANTSEV, R.M.

Prospects for improvements in the design of heating and heat-treating
furnaces. Stal' 20 no.6:562-567 Je '60. (MIA 14:2)
(Furnaces, Heating;) (Furnaces, Heat-treating)

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R000929910001-0"

VASHCHENKO, A.I.; ZEN'KOVSKIY, A.G.; LIFSHITS, A.Ye.

Effect of certain factors on the composition of combustion products in nonmuffle furnaces for nonoxidizing heating. Izv. vys.ucheb.zav.; chern.met. 4 no.9:153-160 '61. (MIRA 14:10)

1. Moskovskiy vecherniy metallurgicheskiy institut i Stal'proyekt.
(Furnaces, Heating) (Combustion gases)

VASHCHENKO, A.I.; LIFSHITS, A.Ye.

Precipitation of soot carbon in flame furnaces for nonoxidizing heating. Izv. vys. ucheb. zav.; chern met. 5 no.1:198-203
'62. (MIRA 15:2)

1. Moskovskiy vecherniy metallurgicheskiy institut i Gosudarstvennyy soyuznyy proyektnyy institut Ministerstva chernoy metallurgii.
(Furnaces, Heating)
(Soot)

S/276/63/000/002/020/052
A052/A126

AUTHORS: Gus'kiy, V.L., Ivanova, N.I., and Lifshits, A.Ye.

TITLE: Stal'proyekt standard injection burners

PERIODICAL: Referativnyy zhurnal, Tekhnologiya mashinostroyeniya, no.2, 1963, 66-67, abstract 2B310 (Sb. tr. Gos. soyuzn. in-t po proyektir. agregatov staleliteyn. i prokatn. proiz-va chern. metallurgii, no. 2, 1962, 78-87)

TEXT: It is reported on the revision carried out by Stal'proyekt in 1960-1961 of specifications of standard injection burners employed in hardening furnaces and other heating units. As a result of the revision all injection burner designs were reduced to 3 standard series II, B and H (P, V, and N). A table of design dimensions of P, V and N-type burners is presented as well as diagrams of their efficiency and rated operational conditions of standard burners. There are 4 figures.

T. Kislyakova

(Abstracter's note: Complete translation.)

Card 1/1

ACCESSION NR: AR4039333

S/0277/64/000/003/0007/0007

SOURCE: Ref. zh. Mashinostr. mat. konstr. i raschet detal. mash. Otd. vy*p..
Abs. 3.48.48

AUTHOR: Garmash, L. I.; Lifshits, A. Ye.; Ty*mchak, V. M.

TITLE: Heat resistant and refractory steels used in building furnaces

CITED SOURCE: Sb. tr. Gos. soyuzn. in-t po proyektir. agregatov stalaliteyn. i
prokatn. proiz-va dlya chern. metallurgii Stal'proyekt, vy*p. 4, 1963, 87-103

TOPIC TAGS: steel, heat-resistant steel, refractory steel, furnace structure,
furnace building, heat resistance, stress resistance

TRANSLATION: Listings of heat resistant and refractory steels for work under
temperatures of 600-1,200 degrees Centigrade are given. Characteristics of momen-
tary and long-range heat resistance of these steels are given along with recom-
mendations on the selection of permissible stress and on the use of steels in
furnace designs.

DATE ACQ: 22Apr64

SUB CODE: MM

ENCL: 00

Card 1/1

ZOENIN, B.F.; TEBEN'KOV, B.P., kand. tekhn.nauk, retsenzent;
LIFSHITS, A.Ye., kand. tekhn. nauk, red.

[Heating furnaces; theory and design] Nagrevatel'nye
pechi; teoriia i raschet. Moskva, Mashinostroenie, 1964.
(MIRA 18:2)
310 p.

EFROS, Miron Moiseyevich; LIFSHITS, A.Ye., retsenzent; LEBDEV,
N.D., red.

[Heating and heat-treating gas-operated furnaces] Nagre-
vatel'nye i termicheskie pechi na gazovom toplive. Mo-
skva, Metallurgiia, 1945 p. 415 p.
(MIRA 18:2)

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R000929910001-0

GUSOVSKIY, V.L.; IVANOVA, N.I.; LIFSHITS, A.Ye.; TYMCHAK, V.M.

Injection burners of the State All-Union Design and Planning
Institute of the Ministry of Ferrous Metallurgy. Gaz. prom.
(MIRA 17:12)
9 no.11:17-21 '64.

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CIA-RDP86-00513R000929910001-0"

GUSOVSKIY, V.L.; LIFSHITS, A.Ye.; TYMCHAK, V.M.

Review of the book "Continuous heating furnaces." Stal' 24
no.12:1144 D '64. (MIRA 18:2)

1. Gosudarstvennyy soyuznyy institut po proyektirovaniyu agregatov
staleliteynogo i prokatnogo proizvodstva dlya chernoy metallurgii.

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R000929910001-0

GUSOVSKIY, V.L.; LIFSHITS, A.Ye.; TYMCHAK, V.M.

Combustion of natural gas. Book by A.V. Arseyev; review. Stal'
25 no.4:373 Ap '65. (MIRA 18:11)

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CIA-RDP86-00513R000929910001-0"

ZHIVOV, Matvey Aronovich; PANKOV, Valentin Pavlovich; LIFSHITS, B.A., red.;
MIRONOV, A.V., red. izd-va; LELYUKHIN, A.A., tekhn. red.

[Manual for operators of machinery used in municipal sanitation]
Spravochnik mekhanika po mashinam dlia sanitarnoi očistki gorodov.
Moskva, Izd-vo M-va kommun. khoz. RSFSR, 1960. 183 p.

(MIRA 14:7)

(Street cleaning—Equipment and supplies)
(Refuse and refuse disposal—Equipment and supplies)

ZHIVOV, Matvey Aronovich; LIFSHITS, Boris Arkad'yevich; YERESNOV, N.I.,
red.; BAKHTIYAROVA, R.Kh., red. izd-va; LEIYUKHIN, A.A., tekhn.
red.

[Organization and technology of municipal sanitary engineering]
Organizatsiya i tekhnologiya uborki goroda. Moskva, Izd-vo M-va
kommun. khoz. RSFSR, 1961. 230 p. (MIRA 15:6)
(Sanitary engineering)

LIFSHITS, B.M., dotsent

Gunshot wound of the nose and posterior wall of the pharynx.
Vest.otorin. 22 no. 6:88-89 '60. (MIRA 14:1)

1. Iz otdeleeniya bolezney ukha, gorla i nosa (zav. B.M. Lifshits)
2-y Darnitskoy rayonnoy bol'nitsy, Kiyev.
(NOSE—WOUNDS AND INJURIES)
(PHARYNX—WOUNDS AND INJURIES)
(GUNSHOT WOUNDS)

LIFSHITS, B.M., dotsent

Ligature of the external carotid artery in hemorrhages following tonsillectomy. Zhur.ush., nos.1 gorl.bol. 22 no.2:78-80 Mr-Ap '62.
(MIRA 15:11)

1. Otdeleniye bolezney ukha, gorla i nosa 2-y Darnitskoy rayonnoy bol'nitsy Kiyeva.

(TONSILS—SURGERY)
(CAROTID ARTERY—LIGATION)

S/080/63/036/002/017/019
D403/D307

AUTHORS: Vol'-Epshteyn, A. B., Lifshits, B. R. and Surovtseva, V. V.

TITLE: Hydrogenation of a phenolic resin obtained during the preparation of diphenylolpropane

PERIODICAL: Zhurnal prikladnoy khimii, v.36, no. 2, 1963, 456-459

TEXT: 2,2-(2-hydroxyphenyl), (4-hydroxyphenyl)propane, 2,4-(¹, -dimethyl-4-hydroxyphenyl)-phenol and 4,4'-hydroxyphenyl-2,2,4-trimethylchroman form during the preparation of 2,2-di-4-hydroxyphe-nyl-propane (I) from phenol and acetone. The authors showed earlier that the bond between the quaternary carbon and the benzene ring is made susceptible to hydrogenation owing to the para-hydroxyl group, giving phenol and p-iso-propylphenol. In the present work the authors hydrogenated the phenolic resin, (formed during the preparation of I in presence of H₂SO₄) over an Al-Co-Mo catalyst, at 310 - 360°C, in an autoclave with initial H₂-pressure of 40 atm.,

Card 1/2

S/080/63/036/002/017/019

D403/D307

Hydrogenation of a ...

obtaining ~30% yields (each) of phenol and p-iso-propylphenol at ~325°C. Some ortho isomer was probably also present in the latter compound. There are 2 figures and 1 table.

ASSOCIATION: Institut goryuchikh iskopayemykh (Institute of Fuel Minerals)

SUBMITTED: October 19, 1961

Card 2/2

LIFSHITS, B.S.; TOMASHPOL'SKIY, I.A.; KAROCHKINA, A.A.; PROTSAROV, S.A.;
VASIL'YEVA, A.N.

Intrafactory price lists for tools and equipment. Avt.prom. 29
no.3:1-2 Mr '63. (MIRA 16:3)

1. Moskovskiy avtozavod imeni Likhacheva.
(Industrial equipment)

LIFSHITS B.V.

ZELINSKIY, N.D.; BONDAR', L.S.; KOST, V.N.; LIFSHITS, B.V.

Higher ramified acids. Izv.Akad.nauk SSSR; Khim.otd. no.2:96-99
Mar-Apr 51. (CIML 20:7)

1. Laboratory of Organic Chemistry imeni N.D. Zelinskiy of Moscow
State University.

STEFANOVICH, Z.; LIFSHITS, D.

Modification of the system for the receiving of and accounting
for beef cattle. Mias ind SSSR 34 no. 6:24 '63. (MIRA 17:5)

1. Sovet narodnogo khozyaystva Latviyskoy SSSR.

LIPSHITS, D.B.

✓ The effect of methods of culture on the formation of amylolytic and proteolytic enzymes of *Aspergillus oryzae*. B. Ya. Kalashnikov, D. B. Lipshts, B. M. Levintau, and T. I. Trifilina. *Trudy Ukr. Nauch. Issledovatel. Inst. Pishchev. Prom.*, 1951, No. 1, 3-12; *Referat. Zhur. Khim., Biol., Khim.*, 1955, No. 218. Expts. were conducted under both laboratory and practical conditions. Moist sterile wheat bran was used as the medium and an active strain of *A. oryzae* as the inoculum. From the 10 to 24 hr. period of incubation at temperatures up to 44-46° is a period of intensive mold growth. This favorable growth has no effect on the enzymic activity of the mold preps. The moisture content of the medium proved to be a factor of considerable importance; the optimum was 60% in the laboratory and 52% under production conditions. The drying up of the medium even under conditions of aeration with moist air constituted a serious hindrance. This can be corrected by the appropriate addition of sterile moisture. B. S. L.

LIPS h:TS, D.B.

✓ The synthesis of amylolytic and proteolytic enzymes in
culture of *Aspergillus oryzae*. E. Ya. Kalashnikov, D. B.
Lifshits, L. M. Levitan, and T. I. Truhina. *Trudy Ukrains.
Nauch.-Issledovatel. Inst. Pishchev. Prom.* 1954, No. 1,
13-17; Referat. *Zhur. Khim., Biol. Khim.* 1955, No. 13324.
In testing the material for enzyme potency the entire
medium and mold growth was dried at 40-45°. The preps.
obtained by culturing the mold at 24° for 48 hrs. had a
proteolytic activity 1.5-3 times as potent as the one obtained
at 30°. No difference in the potency of the amylolytic
activity could be demonstrated. B. S. Levine.

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R000929910001-0

LIPSHITS, D.B.

Efficient methods for the use of hop in brewing. Trudy UNIIPP
no.2:232-252 '59. (MIRA 14:1)
(Hops) (Brewing)

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R000929910001-0"

KALASHNIKOV, Ye.Ya.; LIFSHITS, D.B.; TRAYNINA, T.I.

Methods of increasing the amylolytic activity of industrial enzyme preparations produced by the use of mold fungi. Mikrobiologija 29 no.5:749-756 S-0 '60. (MIRA 13:11)

1. Ukrainskiy nauchno-issledovatel'skiy institut pishchevoy promyshlennosti.

(ASPERGILLUS ORYZAE) (AMYLASE)
(INDUSTRIAL MICROBIOLOGY)

KALASHNIKOV, Ye.Ya.; LIFSHITS, D.B.; TRAYNINA, T.I.

Heat generation by cultures of the mold fungus *Aspergillus oryzae* in the production of enzyme preparations. Mikrobiologija 29 no.6: 899-905 N-D '60. (MIRA 14:1)

1. Ukrainskiy nauchno-issledovatel'skiy institut pishchevoy promyshlennosti, Khar'kov.
(ASPERGILLUS ORYZAE) (ENZYMES)
(HEAT)

TRAYNINA, T. I.; LIFSHITS, D. B.; KALASHNIKOV, Ye. Ya.

Effect of the quality of wheat bran on the amylolytic activity
of enzymatic preparations. Mikrobiologija 30 no.3:540-544
(MIRA 15:7)
My-Je '61.

1. Ukrainskiy nauchno-issledovatel'skiy institut pishchevoy
promyshlennosti, Khar'kov.

(BRAN) (ENZYMES) (MOLDS(BOTANY))

LIFSHITS, D.B.

Losses of the dry substances of the nutrient medium in the production of ferment preparations. Ferm.i spirt.prom. 31 no.1:21-23
'65. (MIRA 18:5)

1. Ukrainskiy nauchno-issledovatel'skiy institut pishchevoy promyshlennosti Khar'kovskogo soveta narodnogo khozyaystva.

LIFSHITS, D.B.; MIKHAYLOVSKAYA, B.TS.; KALASHNIKOV, Ye.Ya.

Kinetic study of enzymatic maltose hydrolysis and a precise
method for determination of the maltase activity of fungal
preparations. Mikrobiologiya 33 no.4:713-718 Jl-Ag '64.
(MIRA 18;3)

1. Ukrainskiy nauchno-issledovatel'skiy institut pishchevoy
promyshlennosti, Khar'kov.

SERENKO, Igor' Aleksandrovich; LIFSHITS, Dmitriy Yefimovich;
CHERENKOV, Nikolay Grigor'yevich; SHANDIN, S.N., red.;
ISAYEVA, V.V., ved. red.; POLOSINA, A.S., tekhn.red.

[Drilling slim and reduced diameter wells] Burenie skvazhin
umen'shennykh i malykh diametrov. Moskva, Izd-vo "Nedra,"
1964. 275 p.
(MIRA 17:3)

LIFSHITS, D.Ye.; UGAROV, S.A.; LACHINYAN, L.A.

Modern designs of drilling-pipe clamps abroad. Mash. i
neft. obor. no.9:26-33 '63. (MIRA 17:2)

1. TSentral'noye konstruktorskoye byuro Ministerstva geo-
logii i ohrany nedr SSSR.

LIFSHITS, D.Z.

Traumas fo / the pelvis with complete avulsion of the urethra
from the bladder. Zdrav. Bei. 9 no.3:80-81 Mr'63 (MIRA 16:12)

1. Iz urologicheskogo otdeleniya (zav. B.I.Yakhnyuk) Gomel'skoy
1-iy oblastnoy bol'nitsy.

LIFSHITS, E. B.

LIFSHITS, E. B. -- "Investigation of the Sensitizing Properties of Rhoda-Cyanine Dyes and the Effect of Color-Fast Components on Them." Sub 13 Nov 52, All-Union Sci Res Cinephotographic Inst (NIKFI). (Dissertation for the Degree of Candidate in Chemical Sciences).

SO: Vechernaya Moskva January-December 1952

LIFSHITS, E. B.

USSR/Chemistry - Photosensitizers

Jan 52

"Merocyanine Dyestuffs - Derivatives of Rhodanine. II. Properties of Dimethinemerocyanines With Different Heterocyclic Nitrogen-Containing Radicals," M. V. Deychmeyster, Z. P. Sytnik, E. B. Lifshits, All-Union Sci Res Cine-Matographic Inst

"Zhur Obshch Khim" Vol XXII, No 1, pp 166-175

Synthesized following derivs of rhodanine and 3 ethylrhodanine: 28 dimethinemerocyanines differing by nature of heterocyclic N-contg radicals and 2 monomethineoxanine dyestuffs. Studied light absorption. Found that hypochromic displacement depends on nature of heterocyclic N-contg radicals. All mecyanines synthesized are sensitizers for Ag halide emulsions, most effective being dyestuffs with thiazole, thiazoline, and pyridine-(2) groups.

PA 207T31

LIFSHITS, E. B.
USSR/ Chemistry - Photographic Dyes

1 June 52

"Action of Amines on Some Thiocarbocyanines Containing Alkoxy or Alkylmercapto Groups in the Meso Position," N. N. Sveshnikov, I. I. Levekoyev, B. S. Portnaya, E. b. Lifshits, All-Union Sci Res Cimephoto Inst

"Dok Ak Nauk SSSR" Vol 84, No 4, pp 733-736

Studied action of primary and secondary amines on 9-alkoxy-and 9-methylmercaptothiocyanines which yielded the previously unknown thiocarbocyanine contg the amino group in the 9-position. Also prep'd 9-butylamino and 9-piperidinethiocarbocyanines, 3,3'-bis(3'-ethylbenzthiazolinilidine-2')-propanethione (2), 1,3-bis(3'-ethylbenzthiazol-2'-)proponone(2), 9-phenylmethylamino-and 9-acetylphenylaminothiocarbocyanines. Studied reaction of meso-alkoxycarbocyanine iodides with tertiary amines, which resulted in the splitting off of alkyl halides to form 1,3-disubstituted propanones. Absorption spectra of these substances show that increasing the electrodonor character of the 9-substituent results in a shift to the lower wave length. Presented by Acad V. M. Rodionov 3 Apr 52.

232T9

LIFSHITS, E. B.

Sep 53

USSR/Chemistry - Dyestuffs

"Concerning Merocyanine Dyestuffs, Derivatives of Rhodenine. V. Certain Tetramethinemerocyanines and Hexamethinemerocyanines, Derivatives of 3-Ethyl Rhodanine," M. V. Deychmeyster, I. I. Levkoyev, and E. B. Lifshits, All-Union Sci-Res Cinematog Inst

Zhur Obshch Khim, Vol 23, No 9, pp 1529-1535

Certain tetramethinemerocyanines and hexamethinemerocyanines, derivatives of 3-ethyl rhodanine (I), were synthesized, as well the corresponding trimethine oxazines and pentamethine oxazines. The spectra of absorption in various solvents were measured for eight dimethinemerocyanines, derivatives of I, which differ with respect to the N-Heterocyclic group. On the basis of investigations of the spectra of absorption of the merocyanines derived from I, it was shown that the distribution of electron density in their polymethine chromophore may change considerably depending on the basicity of the heterocyclic groups and the length of the external polymethylene chain.

268T30

LIFSHITS, E.B.

U.S.S.R.

530 Position of Sensitization Maxima in Photographic Emulsions Sensitized by Polymethine *MeroCyanines*. M. V. DEICHMAYER, I. I. LEVKOV, E. B. LIFSHITS, and S. V. NATANSON. *Doklady Akad. Nauk. S.S.R.*, 1953, 93, 1057-1059. — The tetra- and hexa-methine merocyanines referred to in the previous abstract and the corresponding dimethine dyes have sensitization maxima in silver bromide emulsions which are displaced from their absorption maxima (in alcoholic solution) by 32-189 m μ in the direction of the long waves (the usual displacement for cyanine dyes is 23-45 m μ). Also, whereas the bathochromic shifts in the absorption maxima due to lengthening of the polymethine chain average 82 and 30 m μ for di- \rightarrow tetra- and tetra- \rightarrow hexa-methine respectively, the corresponding average shifts in the sensitization maxima are each 110 m μ . It is considered that the main factor determining this behaviour is the polarizing action of silver bromide on the adsorbed dye, an effect that is greatest in dyes of low polarity. *J. Soc. Dyers and Col.*

Eval - 8, 83873, 28 Mar 55

LIFSHITS, E. B.
USSR/Chemistry

Card 1/1

Authors : Deychmeyster, M. V.; Sytnik, Z. P.; Levkoev, I. I.; and
Lifshits, E. B.

Title : Merocyanine dyes derivatives of rhodanine. Part 6.- Dimethine-
merocyanines having the alkyl or phenyl group in the polymethine
chain.

Periodical : Zhur. Ob. Khim. 24, Ed. 5, 898 - 905, May 1954

Abstract : Report describes the synthesis of dimethinemerocyanines, derivatives
of 3-ethylrhodanine with different heterocyclic nitrous radicals
having the alkyl or phenyl group in alpha- or beta-positions of the
polymethine chain. The arrangement of the alkyl or phenyl groups in
alpha- or beta-positions of the polymethine chain of dimethinemero-
cyanines having benzthiazole and benzoxazole radicals causes a batho-
chromic displacement of the absorption maximum. This bathochromic
displacement decreases with the increase in the basicity of the
nitrous heterocyclic radical and in the case of a dye with a 4-phen-
ylthiazole radical the displacement becomes hysochromic.
Twenty-five references. Tables.

Institution : All-Union Scientific-Research Motion Picture-Photo Institute

Submitted : December 23, 1954

LIFSHITZ, E. B.

USER/Chemistry - Physical chemistry

Card 1/1 Pub. 147 - 7/27

Authors : Lifshitz, E. B.; Natanson, S. B.; and Levkoyev, I. I.

Title : Absorption spectra of solutions of certain carbocyanine and rhodacyanine dyes in the presence of colored non-diffusion components

Periodical : Zhur. fiz. khim. 28/9, 1572-1580, Sep 1954

Abstract : The effect of colored non-diffusing components as well as other compounds on the absorption spectra of aqueous solutions of numerous cyanine and rhodacyanine dyes, was investigated. It was established that the presence of these compounds results in the appearance of a new absorption band (in the absorption spectra of the dyes) which is somewhat shifted toward the long-wave zone. The origination of these new absorption bands was found to be connected with the presence of high molecular hydrocarbon radicals in the molecule of the aqueous solution. Twenty references: 5-USSR; 6-German; 8-USA and 1-English (1909-1953). Graphs.

Institution : The All-Union Scientific Research Motion Picture Photo Institute, Moscow

Submitted : November 20, 1953

LIFSHITS, E. B., AND LEVKOYEV, I. I. et al.

"On the Influence of the Structure and of Some Physico-Chemical Factors
on the Sensitizing Effect of Polymethine Dyes" paper given at the
International Conference on Scientific Photography, Cologne, 24-27
Sep 1956

E-3,068,138

Lifshits, E.B.
USSR/Photochemistry. Radiation Chemistry. Theory of Photographic Process. B-10

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 26270

Author : S.V. Natanson, E.B. Lifshits, I.I. Levkoyev
Title : Causes of Supression of Sensibilizing Action of Dyes by Colored Non-Diffusion Components.

Orig Pub : Zh. nauch. i prikl. fotogr. i kinematogr., 1956, 1, No 3, 174-182

Abstract : The adsorption and desorption of sensitizing dyes (D) 3, 3', 9-triethyl-5,5' - dimethylthiacarbocyanine of tolusulfonate (I), 3,3' -dicarboxyethyl-5,5' - dimethyl-9-ethylthiacarbocyanine-betaine (II) and rhodacyanine - 3-ethyl-2,3-dihydro-2-[3'-thylthiazolene-2"]-methylidene[-5-]β-(3'-ethyl-2', 3'-dihydrothizolinilidene-2)-ethylidene]-thuazoline-4-on of perchlorate (III) in presence of the non-diffusion component of color display of sodium salt of N-octadecyl-N- α -naphthylamide 1-oxy-4-sulfo-2-naphthoic acid (IV) on silver bromide powder were measured. AgBr was produced by mixing 2 n. solutions of AgNO_3 and KBr with an 0.2% excess of the latter. The adsorbability of D decreases first sharply and after that slowly with the increase of the amount of IV. At very great amounts of IV

Card : 1/2

USSR/Photochemistry. Radiation Chemistry. Theory of Photographic Process. B-10

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 26270

(1×10^{-4} moles per 1 g of AgBr) the adsorption of all the three K-s does not practically exist. Same regularities are observed also in desorption of K_w, but in this case, even if the amount of IV was increased to 800 mols per mol of adsorbed D, only 78, 46 and 35% of I, III, and II are desorbed. The incomplete desorption of K-s proves that the surface of AgBr is not uniform. The coincidence of desorption data with the magnitude and course of the decrease of the sensitizing capacity of K-s after the introduction of various amounts of IV into silver halide emulsions shows that this decrease is caused by the dislodgement of sensitizers from the surface of the emulsion microcrystals. Comparative tests with several rhodacyanines prove that the "componental stability" of K-s can be fixed by the determination of their desorbability. Parallel experiments with diffusion components showed that the decrease of the sensitizing action in presence of non-diffusion components was connected mainly with the presence of the high-molecular aliphatic radical in molecules of these components.

Card : 2/2

LIFSHITS, E.B.

DEYCHMEYSTER, M.V.; LEVKOYEV, I.I.; LIFSHITS, E.B.

Research on cyanine dyes. Part 10: On some merocyaninocarbocyanines.
Zhur. ob. khim. 27 no.1:202-215 Ja '57. (MLRA 10:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut.
(Cyanine dyes)

20-2-30/60

AUTHORS: Sytnik, Z. P. , Zhilina, L. D. , Lifshits, E. B.

TITLE: Merocyanine Dyes With Electron-Releasing Substituents in the Polymethine Chain (O merotsianinovykh krasitelyakh s elektro-nodonornymi zamestitelyami v polimetinovoy tsperi)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 2, pp.343-346
(USSR)

ABSTRACT: Among the merocyanine dyes substituted in the chain only dimethynmerocyanines have been investigated in sufficient detail, i.e. rhodanine derivatives with an alkyl or phenyl group in the polymethynchromophor. Therefore it was of interest to investigate the methods of synthesis and the properties of the di² and tetramethynmerocyanines which contain in the α -position an electropositive substituent, e. g. an alkoxyl, amino, or a substituted amino group. By the interaction of 3-ethyl-5-(α -ethoxyethylidene)-rhodanine ($R=C_2H_5$) with ethyl-p-toluenesulphonate of 2-ethylmercaptobenzthiazol in the alcohol medium and in presence of triethylamine at normal temperature, α -ethoxydimethynmerocyanine was obtained. In

Card 1/5

20-2-30/60

Merocyanine Dyes With Electron-Releasing Substituents in the Polymethine
Chain

analogy hereto, α -ethoxysubstituted dimethynmerocyanines with rests of 6,7-tetramethylbenzthiazol, benzselenazol, chinoline benzoxazol and thiazolin were synthesized. The authors of the present paper furthermore succeeded in obtaining, by condensation of the 3-ethyl-5-(α -ethoxylidene)-rhodamine ($R=C_2H_5$) with querty salts of the vinyl derivatives of heterocyclic bases in an ethanol solution or in acetic anhydride in presence of triethylamylin, α -ethoxytetramethyn-merocyanines with rests of benzthiazol, as well as of benz-selenazol and 3,3-dimethylindolenin. It could be expected that the alkoxy group would have considerable mobility, and in particular a capacity of exchange with respect to the amino rest, which would make it possible for the authors to proceed to the α -aminosubstituted mercocyanines which have not been described so far. This was actually the case, and after α -ethoxy- or α -methoxydimethynmerocyanine was heated, through one hour, with abundance of methylamine in alcohol solution, two dyes were isolated that are identical from the point of view of their properties. Their elementary composition shows that they are merocyanines with an ethyl-amino group in the α -position. The reactions with methyl-,

Card 2/5

20-2-30/60

· Merocyanine Dyes With Electron-Releasing Substituents in the Polymethine Chain

butyl-, nonyl-, dodecyl- and benzylamines took exactly the same course. In complete analogy hereto, the authors of the paper under review obtained, by action of ethylamine on appropriate α -ethoxymerocyanines, α -ethylaminosubstituted dimethynmerocyanines with rests of 6,7-tetramethylenebenz-thiazol, benzselenazol, chinoline, thiazoline, and tetra-methynmercocyanine. The exchange of the ethoxy- or methoxy-groups in merocyanines of the I-structure (Figure in the paper under review) takes place at normal temperature, but is slower. The process of heating leads to a number of additional subsidiary processes. A totally different course is taken by the reaction of α -ethoxydimethynmerocyanine with aniline and secondary amines. A yellow substance is produced. So far it has not been possible to substitute both the ethoxy- and also the methylmercapto-group by aniline and diethylamine. It has been demonstrated that 3-ethyl-5-(α -ethoxyliden)-rho-danine reacts with aniline and piperidine exactly as easily as with ammonia and the primary aliphatic amines (e.g. methyl- and etheramine), with aminosubstituted ethyldien-rhodanides

Card 3/5

20-2-30/60

Merocyanine Dyes With Electron-Releasing Substituents in the Polymethyn
Chain

being formed in this context. Here again substitution of the ethoxygroup as compared to the rest of an aliphatic amine leads to a sharp decrease in the reactive capacity of the methyl group. As expected, the acetylation of the amino group in the compound denoted with IV leads to a noticeable increase of the mobility of the hydrogen atoms of the methyl group. Analogous syntheses were carried out, starting from the appropriate ethylenrhodanines, of the α -phenylacetamino- and α -phenylacetoaminemerocyanines. These can also be obtained by acetylation of appropriate α -amino-, α -ethylamino-, and α -phenylaminomerocyanines. There takes place in merocyanines, which contain rests of 6,7-tetramethylenbenzthiazol, benzselenazol, chinoline, and thiazoline, a shift of the maximum of absorption into the long-wave sphere, if an alkoxy- and ethylamine-group is introduced. Acetylation of the amino group results in a sharp bathochromic shift of the maximum of absorption of the dyes. There are 1 table, and 11 references, 5 of which are Soviet.

Card 4/5

20-2-30/60

Merocyanine Dyes With Electron-Releasing Substituents in the Polymethine Chain

ASSOCIATION: All-Union Scientific Research Institute for Cinematography and Photography
(Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut)

PRESENTED: January 12, 1957, by I. L. Knunyants, Member of the Academy

SUBMITTED: January 10, 1957

AVAILABLE: Library of Congress

Card 5/5

SOV/77-3-6-5/15

AUTHORS:

Levkoyev, I.I., Lifshits, E.B.

TITLE:

On the Photographic Properties of Certain Symmetrical Carbocyanine Colorants with Different Alkyl Groups in Nitrogen Atoms of Heterogenous Residues (O fotograficheskikh svoystvakh nekotorykh simmetrichnykh carbotsianinovykh krasiteley s razlichnymi alkil'nymi gruppami pri atomakh azota geteroostatkov)

PERIODICAL:

Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1958, Vol 3, Nr 6, pp 419-426 and 3-page insert (USSR)

ABSTRACT:

The authors, assisted by S.V. Natanson in the evaluation of their research results, T.D. Rybnikova, G.F. Kurepina and B.G. Varshaver in the experimental part of their investigations, and V.V. Durmashkina in the synthesis of some colorants, investigated the photographic properties and absorption spectra in the emulsion of a series of symmetrical (no substitution in chain) carbocyanines with different heterocyclic residues containing methyl, ethyl or higher alkyl groups in nitrogen atoms. The absorption spectra were measured with an SF-2 spectrophotometer, the sensitized plates were exposed in the GOI (ISP-73) spectrosensitometer and developed in Chibisov's developer. Contrary to data quoted in literature, the methylates and ethylates of several colorants with

Card 1/3

On the Photographic Properties of Certain Symmetrical Carbocyanine Co-
lors with Different Alkyl Groups in Nitrogen Atoms of Heterogenous
Residues

SOV/77-3-6-5/15

residues of indolenine, thiazoline, benzimidazole and thio-diazole do not differ with respect to sensitization action, while in the cases of thia-, oxa-, and chihocabcyanines, the N,N'-dimethyl derivatives are actually considerably less effective as compared with the ethyl derivatives. As far as the character of the sensitization spectra, fogging and desensibilization action, and the magnitude of the basicity are concerned, the methylates of all investigated carbocyanines are very close to the corresponding ethylates. As compared with the ethylates, the methylates of those carbocyanines which - contrary to the ethyl derivatives - are adsorbed to the emulsion microcrystals (mainly in the N-condition), have considerably less sensitization action. These conditions usually have such a feeble photochemical activity that the corresponding bands do not appear in the sensitization spectra. In a series of 1,1'-dialkyl-3,3,3',3'-tetramethyl indocarbocyanines, the inclination toward a sensitization of the second type grows with the transition from the

Card 2/3

On the Photographic Properties of Certain Symmetrical Carbocyanine Compounds with Different Alkyl Groups in Nitrogen Atoms of Heterogenous Residues

SOY/77-3-6-5/15

methylate to the ethylate, especially the n-propylate.
There are 10 graphs, 10 spectral photographs, 2 tables and
34 references, 11 of which are Soviet, 21 English and 2 German.

Vsesoyuznyy nauchno-issledovatel'skiy kinefotoinstitut (The
All-Union Scientific Research Institute for Motion Pictures
and Photography)

ASSOCIATION:

September 20, 1957

SUBMITTED:

Card 3/3

LIFSHITS, E.B.

Absorption spectra of the emulsions with polymethine dyes, derivatives
of 3,4-benzoquinoline. Trudy NIKFI no.40:62-69 '60. (MIRA 15:2)
(Photographic emulsions)(Dyes and dyeing--Spectra)

LIFSHITS, E.B.; NATANSON, S.V.

Sensitization spectrum of dicarboxylic dyes. Zhur.nauch.i prikl.
fot. i kin. 6 no.2:92-96 Mr-Ap '60. (MIRA 14:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut.
(Photographic emulsions)

LIFSHITS, E.B.

Characteristics of the sensitization and absorption spectra of some dimethinemericyanines in emulsions. Zhur. nauch. i prikl. fot.i kin. 6 no.1:64-66 Ja-F '61. (MIRA 14:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy kino-fotoinstitut (NIKFI).
(Photographic emulsions)(Dimethinemericyanine)

S/058/63/000/002/026/070
AC62/A1C1

AUTHOR: Lifshits, E. B., Natanson, S. V., Levkoyev, I. I.

TITLE: About the influence of non-diffusing color components on the process of optical sensitization of silver halide emulsions

PERIODICAL: Referativnyy zhurnal, Fizika, no. 2, 1963, 96 - 97, abstract 2D627
("Uspekhi nauch. fotogr.", 1962, v. 8, 44 - 55)

TEXT: A study was made of the influence of non-diffusing color components on the sensitizing action, the desorption and the absorption spectra in emulsions of dyes possessing different component stabilities and tendencies to polymerization. It is shown that under the influence of the components and under conditions near those applied for obtaining lightsensitive layers, practically all dyes are desorbed and then, if their sensitizing action decreases, that action is the more reduced the higher the desorption degree. The decrease of the sensitizing action of dyes is due not only to the desorption thereof, but also to the depressing influence of the adsorbed component on the transmission of the energy absorbed by the sensitizer to the silver halide lattice. It is ascertained that the character

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S/058/63/000/002/026/070

About the influence of non-diffusing color components on A062/A101

of the spectra of sensitization and absorption on the silver halide of non-polymerizable dyes does not change in the presence of color components. In a number of polymerizable dyes the character of the absorption spectra of component stable compounds considerably varies owing both to the main desorption of various polymeric states and to the redistribution of aggregate states in the adsorption layer. In the case of component stable sensitizers these changes are, as a rule, small. The authors assume that the increase of the sensitizing action of certain dyes in the presence of non-diffusing components, and also of a number of other surface active substances, may be explained by the elimination, from the surface of the silver halide, of ions or compounds that render difficult transmission of energy from the sensitizer to the silver halide lattice, or by the fact that the orientation of the dye molecules in the adsorption layer is favorable to the process of transmission of the absorbed energy. There are 18 references.

[Abstracter's note: Complete translation]

Card 2/2

LIFSHITS, E.B.; RYENIKOVA, T.D.; LAZAREVA, T.M.

Component stability of merocyanines and their adsorption on
silver halides. Zhur.nauch. i prikl.fot. i kin. 8 no.5:381-
384 S-0 '63. (MIRA 16:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut
(NIKFI).

L 6915-65 ENT(m)/EMP(j) Ps-4 SSD/AEDC(a)/ASD(a)-5/APVL/ESD(gs)/ESD(t)/
RAEM(t) RM S/0058/64/000/004/D115/D116
ACCESSION NR: AR4039918

AUTHORS: Sytnik, Z. P.; Lyubich, M. S.; Abdullayev, A. A.; Lifshits,
E. B.; Grechko, M. K.; Vilenskiy, Yu. B.

58

SOURCE: Ref. zh. Fiz., Abs. 4D892

TITLE: Research in the series of merocyanines of azolones. IX.
Alpha-ethoxythiadimentinemerocyanins with different substitutes at
the cyclic nitrogen atoms

CITED SOURCE: Kinotekhnika. Nauchno-tekhn. sb., vy*p. 4, 1963, 54-63.

TOPIC TAGS: photosensitivity, photographic emulsion, color film,
organic sensitizer, diffusion

TRANSLATION: The dye α -ethoxythiadimethinemerocyanin, used as an
optical sensitizer for the green-sensitive emulsion of negative
color film, has a shortcoming in that it diffuses relatively easily

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ACCESSION NR: AR4039918

in the neighboring layers of multilayer films. To replace it by a dye free of this shortcoming, the authors have synthesized and tested the dyes thia- and α -ethoxythiadimethinemerocyanin and derivatives of thyazoleidinthion (2)-on(4) with different substitutes at the cyclic nitrogen atoms, and investigated their photographic properties. It is established that replacement of the ethyl group at one or both nitrogen atoms of the hetero-remainders by the n-butyl group, or replacement of the same group in the 3-position of rodamine residue by the phenyl group, greatly reduces the tendency of the dyes to diffusion, without appreciably influencing their color, character of sensitization spectrum, and effective action. A.

Kartuzhanskiy.

SUB CODE: OP, ZS

ENCL: 00

Card 2/2

L 6914-65 EWT(m)/EWP(j) PC-4 SSD/ASD(a)-5/AFW/ESD(gs)/ESD(t)/RAFM(t) RM

ACCESSION NR: AR4039919 8/0058/64/000/004/D116/D116

55

SOURCE: Ref. zh. Fiz., Abs. 4D893

AUTHORS: Gnevysheva, T. G.; Lifshits, E. B.; Levkoyev, I. I.;
Sytnik, Z. P.

TITLE: Research in the field of cyanine dyes. XI. On some poly-methine dyes from derivatives of phenyl substituted thiazolines

CITED SOURCE: Kinotekhnika, Nauchno-tekh. sb., vy*p. 4, 1963, 37-53

TOPIC TAGS: organic derivative, photographic emulsion, conjugated system, dye, sensitivity, increase, color film

TRANSLATION: Optical sensitizer-dyes, symmetrical carbo-, di-, and tri-carbocyanines, merocyanine derivatives of 2-ethylrhodianine and some rhodacyanines were obtained from quaternary salts 2-methyl-5-phenyl- and 2-methyl 4,5-diphenyl thiazoline. The optical properties

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ACCESSION NR: AR4039919

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of these dyes were investigated in solution and in an absorption layer on AgHal, and also in the presence of colored nondiffusing components. It is shown that phenyl groups not conjugated with the chromophor hardly influence the coloring of the dye and do not increase its tendency to formation of polymer aggregates on the AgHal surface, but greatly reduce the basicity of the thiazoline nucleus. The entry of the phenyl groups into the thiazoline cyanines and rhodacyanines reduces their sensitizing action, the degree of reduction in the case of cyanines being the larger, the longer the polymethine chain of the dye. Introduction of nonconjugated phenyl groups into the heteroresidues of the same dyes results in an increase of their component stability. Bibliography, 26 titles. For part XVIII see Abstract 4D867. A. Kartuzhanskiy.

SUB CODE: ES, OC

ENCL: 00

Card 2/2

1 39708-65

ACCESSION NR: AF5011/22

UR/0077/64/009/004/0266/0276
15
8

AUTHOR: Lifshits, E. B.; Lazareva, T. M.

TITLE: Effect of non-diffusing masking color components on sensitizing effective dyes

SOURCE: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, v. 9, no. 4, 1964, 266-276

TOPIC TAGS: photographic film, photographic chemistry, photographic chemical, cyanide compound

ABSTRACT: A study was made of the effect of nondiffusing masking color components of derivatives of pyrazolone-5 and 1,2-oxynaphthoic acid, containing an arylazo-group on the sensitizing effect of different classes of dyes: carbo-, thiocyanato-, merocyanine-, and dimerocyanides. It was found that the masking components result in greater desorption of the dyes studied from the surface of the emulsion grains compared to that produced by the corresponding uncolored compounds. It was established that a reduction in the additional light-sensitivity of emulsion sensitized with carbo- and thiocyanines, when in the presence of masking components, is due mainly to the gradual increase in desorption of these dyes from the surface of the emulsion microcrystals.

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L39708-65

ACCESSION NR: AP5011722

Desorption of intra-ionoid dyes -- merocyanines and dimerocyanines of derivatives of N-alkyl (aryl) azolidinethione-2-ones under these conditions practically does not increase at all and their sensitizing effect as a rule is not reduced upon retention of the emulsion. "The authors thank I. I. Levkoyev for his attention to the work" Orig. art. has: 4 formulas, 13 graphs and 3 tables.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut [NIKFI]
(All-Union Scientific Research Motion Picture Film Institute [NIKFI])

SUBMITTED: 16Sep63

ENCL: 00

SUB CODE: ES, GC

NO REF Sov: 014

OTHER: CO4

JPRS

Card 2/2 71/3

L 31094-65 EMT(1)/T/EED(b)-3 Page-2 IJP(c)

S/0286/65/000/002/0086/0086

ACCESSION NR: AP5004978

30

AUTHORS: Mifahits, E. B.; Yagupol'skiy, L. M.; Levkoyev, I. I.; Tufa, P. A.; Naroditskaya, D. G.

28

13

TITLE: A method for sensitizing silver halide photographic materials. Class 57,
No. 167746

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 2, 1965, 86

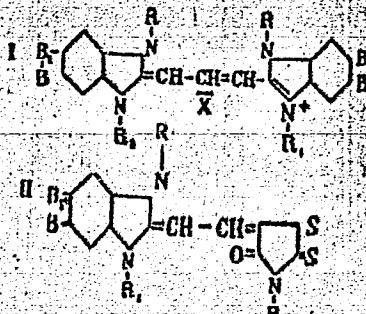
TOPIC TAGS: photography, photographic material, photographic emulsion, color
photography, silver compound, light sensitivity, silver halide

ABSTRACT: The Author Certificate introduces a method for sensitizing silver
halide photographic materials to the green, yellow, and orange bands of the
spectrum by introducing, prior to printing, of sensitizers - tetrahalide-replaced
imidocarbocyanines, to attain a high supplementary light sensitivity of photo-
graphic materials. The sensitizers used are either imidocarb (I) - or imido-
dimethinecarbocyanines (II) of the general formula:

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L 31094-65

ACCESSION NR: AP5004978



Here, B - F, Cl, or OCH_3 - groups; B_1 - SO_2CF_3 or SO_2OCF_3 - groups; R - alkyl or aryl; R_1 - alkyl; X - acid residue. In an alternate method, to obtain a green-sensitive layer in layered materials, after the introduction of sensitizers, the emulsion also receives nondiffusing components, such as the pyrazolone derivatives. Orig. art. has: 1 formula.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (All-Union Scientific Research Institute of Cinematic Photography); Institut organicheskoy khimii AN UkrSSR (Institute of Organic Chemistry, AN UkrSSR)

Card 2/3

I 40307-65 EWT(1)/T/EED(b)-3 Pae-2 IJP(c)
ACCESSION NR: AP5008230

S/0286/65/000/005/0103/0104

AUTHORS: Yagupol'skiy, L. M.; Lifshits, E. B.; Kondratenko, N. V.; Timofeyeva, R. V.; Kurepina, G. F.

TITLE: A method for sensitizing silver halide photographic materials. Class 57,
No. 168989

SOURCE: Byulleten' izobreteniy i tovarknykh znakov, no. 5, 1965, 103-104

TOPIC TAGS: photochemistry, photographic chemical, photography, sensitivity increase, silver compound

ABSTRACT: This Author Certificate presents a method for sensitizing silver halide photographic materials to the green, yellow, and orange bands of the spectrum. The method involves the introduction of sensitizers such as imidocarbocyanines and nondiffusing components of pyrazolone derivatives into the materials prior to applying the latter. To impart a high uniformity of additional light sensitivity to photographic materials, imidocarbocyanine and imidomethinemerocyanine are used as sensitizers. The residues of these compounds contain trifluoromethylmerocapto-, fluorosulfonyl, or trifluoromethylsulfoxide groups.

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L 40307-65

ACCESSION NR: AP5008230

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (All-Union
Scientific Research Institute of Cinematography); Institut organicheskoy khimii,
AN UkrSSR (Institute of Organic Chemistry, AN UkrSSR)

SUBMITTED: 1/Mar/64

ENCL: 00

SUB CODE: GC, OC

NO REF Sov: 000

OTHER: 000

l/c
Card 2/2

Lifshits, E.L.

J. J. Cahn

464c

6332 ON A CARRIER SCATTERING MECHANISM IN LEAD
TELLURIDE L.S. Shubans, H.I. Blok and E.L. Lifshits
Dokl. Akad. Nauk SSSR, Vol. 112, No. 6, 1027-13 (1957). In Russian.

Theoretically, the mobility in an atomic semiconductor varies as $T^{-1/2}$ but recent observations, particularly in PbS, PbSe and PbTe have revealed a $T^{-1/3}$ law. If the mean free path of an electron is assumed to be proportional to ϵ^r/T , where ϵ is its energy, then $r = 1$, which contradicts the theory for atomic semiconductors ($r = 0$). It is deduced from measurements of thermoelectric power and Hall constant on a wide range of samples of PbTe that r must, in fact, be zero. A mechanism is suggested which is compatible with a $T^{-1/3}$ law at low temperatures, changing to $T^{-1/2}$, or even $T^{1/2}$, at high temperatures. This involves the increasing probability of double or triple phonon collisions as the temperature rises.

J.B. Arthur

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LIFSHITS, E.L.

STIL'BANS, L.S.; BOK, B.I.; LIFSHITS, E.L.

Mechanism of carrier scattering in lead telluride. Dokl.
AN SSSR 111 no.5:1011-1013 D '56. (MLRA 10:2)

1. Institut poluprovodnikov Akademii nauk SSSR. Predstavлено
академиком А.Ф. Иоффе.
(Lead telluride--Electric properties)
(Semiconductors)